



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,847	08/22/2001	Akihiro Odagawa	29288.0800	4739
20322	7590	11/06/2003	EXAMINER	
SNELL & WILMER ONE ARIZONA CENTER 400 EAST VAN BUREN PHOENIX, AZ 850040001			NGUYEN, HIEN N	
			ART UNIT	PAPER NUMBER
			2824	

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,847

Applicant(s)

ODAGAWA ET AL.

Examiner

Hien N Nguyen

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 16, 20, 24 and 28-38 is/are allowed.
- 6) ☒ Claim(s) 13-15, 17-19, 21-23, 25-27 and 39-64 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/22/01 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: SEARCH REPORT.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-15, 17-19, 21-23, 25-27, 39, 50-52, 54-56, 58-60 and 62-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The above claims (13-15, 17-19, 21-23, 25-27, 39, 50-52, 54-56, 58-60, 62-64) are indefinite and rejected because they are "method claims" which depend upon "apparatus claim". Clarification is needed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 40-49, 53, 57 and 61 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,219,275 issue to Nishimura.

Nishimura figures 4A and 4B show a magneto-resistive element comprising a first ferromagnetic film (11), a second ferromagnetic film (12), a first non-magnetic film (13) provided between the first ferromagnetic film and second ferromagnetic film, wherein the first ferromagnetic film and second ferromagnetic film have different magnetization inversion (figure 4B), and the first non-magnetic film contains a nitride (see column 7, lines 40-50).

Regarding claims 41-49, 53, 57 and 61, the limitation of materials used for the first ferromagnetic film and second ferromagnetic film can be found in column 7, lines 45-50 and column 9, lines 22-45.

Allowable Subject Matter

Claims 1-12, 16, 20, 24, 28 and 29-38 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for allowance is the inclusion of a third conductive film for generating a magnetic field for causing magnetization inversion in at least one of the first ferromagnetic films and second ferromagnetic films include in the plurality of stacking structures, the third conductive film not being electrically in contact with the first ferromagnetic films and second ferromagnetic films.

Conclusion

1. No art rejection is applied for claims 13-15, 17-19, 21-23, 25-27, 39, 50-52, 54-56, 58-60 and 62-64 at this time because of the indefinite rejection as stated above.

Art Unit: 2824

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hikosaka et al. (5,981,054), Koganei(6,480,411) and Odagawa et al. (6,538,297) are cited as of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien N Nguyen whose telephone number is (703)-308-4888. The examiner can normally be reached on Monday through Thursday 9:30 AM to 7:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (703) 308-2816. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-5833.

H. Nguyen
October 20, 2003



RICHARD ELMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800